A Message from the U.S. Environmental Protection Agency

Across America, the sources of both tap and bottled drinking water include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or human activity. Contaminants that may be present in source water include:

- *Microbial contaminants*, such as viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- *Inorganic contaminants*, such as salts and metals, can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- *Pesticides and herbicides*, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- *Organic chemical contaminants*, including synthetic and volatile organic chemicals that are byproducts of industrial processes and petroleum production, which can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.
- *Radioactive contaminants*, which can be naturally-occurring or result from oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the USEPA and SWRCB prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. SWRCB regulations also establish limits for contaminants in bottled water that must provide the same protection for public health.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly persons and infants can be particularly at risk from infections. These people should seek advice about drinking water from their healthcare providers. USEPA/ Centers for Disease Control guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline at 800-426-4791.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline at 800-426-4791.



Hetch Hetchy Reservoir, photo courtesy of AJ Valdez

SAFEGUARDING YOUR WATER SUPPLY

PROTECTING our water supply is important to ensure that water is safe from contamination and aesthetically pleasing for use. Protection begins in the watersheds, where people and their activities can be a major cause of source contamination. Contamination requires additional treatment, which increases the cost to deliver water to your tap.

PARTICIPATING in public meetings and forums regarding water issues enables decision-makers to hear your perspective and allows



Casey Price, Water System Technician ensures customers receive high quality water.

you to be directly involved in protecting your water supply. Visit www.sanjoseca.gov/councilagenda for San José City Council

UNDERSTANDING that drinking water — including bottled water — may reasonably be expected to contain at least minute amounts of contaminants will help you make an informed choice about your drinking water. The presence of contaminants does not necessarily indicate a health risk.

Although water supply levels have improved, California has now entered its fifth year of **drought**. Thanks to our San José Municipal Water System customers who have done an excellent job, we reduced water use by 27 percent! It is important that

everyone continue to reduce their water use.

Please Continue to Use these Rules and Tips:

- Residents and businesses can only water outdoors before 10:00 a.m. and after 8:00 p.m.
- Fix leaks as soon as possible.
- Residents can use your Home Water Reports to track your water use trends and get customized tips on actions you can take.
- Get a free Home Water Audit. Call 1-800-548-1882.
- Install a rain barrel and get up to \$100 in rebates. Visit www.sjenvironment.org/waterconservation for more information.
- Visit San José Municipal Water System's office for free conservation items such as faucet aerators, low flow showerheads, and shower timers.

To view the complete list of water use rules now in effect, please visit www.sjenvironment.org/muniwater

Get even more conservation tips at www.sjenvironment.org/waterconservation

To report water being wasted, please contact Santa Clara Valley Water District at www.valleywater.org/drought or call 408-630-2000.



About Us

THE SAN JOSE MUNICIPAL WATER SYSTEM is a City-owned water utility that has served customers since 1961. We are committed to delivering a reliable water supply that meets or exceeds all drinking water health standards.

Our office is open from 8:00 a.m. to 5:00 p.m., Monday through Friday (closed holidays). For more information, visit our website at www.sjenvironment.org/muniwater or call 408-535-3500 (translation services are available).

In accordance with the Americans with Disabilities Act, City of San José Environmental Services Department materials can be made available upon request in alternative formats, such as Braille, large print, audiotape or computer disk. Requests may be made by calling 408-277-3671 (voice), 800-735-2929 (California Relay Service), or 408-294-9337 (TTY).

The City of San José is committed to open and honest government and strives to consistently meet the community's expectations by providing excellent service, in a positive and timely manner, and in the full view of the public.



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Definitions

AL (Regulatory Action Level)

The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and

Secondary MCLs are set to protect the odor, taste, and appearance of drinking water

MCLG (Maximum Contaminant Level Goal)

The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the USEPA.

MRDL (Maximum Residual Disinfectant Level)

The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

MRDLG (Maximum Residual Disinfectant Level Goal) The level of a drinking water disinfectant below which there is no known or expected risk to healt MRDLGs do not reflect the benefits of the use of

disinfectants to control microbial contaminants.

NL (Notification Level)

Health-based advisory levels established by the SWRCB for chemicals in drinking water that lack maximum contaminant levels.

PDWS (Primary Drinking Water Standard)

MCLs and MRDLs for contaminants that affect health along with their monitoring, reporting, and water treatment requirements.

The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

Raw water that has not been treated to meet drinking water standards.

Water that has been treated to meet USEPA and SWRCB drinking water standards.

Treatment Technique

A required process intended to reduce the level of a contaminant in drinking water.

less than Action Level

AL CU

Color Unit Not Applicable Not Detected

No Standard
Nephelometric Turbidity Units
pico Curies per liter
parts-per-billion (equals 1 microgram

per liter (µg/L)) ppm parts-per-million (equals 1 milligram per liter (mg/L))

per liter (mg/L)) Threshold Odor Number

his brochure summarizes L last year's water quality.

your water comes fro

contains, and how it compares

to drinking water standards

set by the U.S. Environmental

Protection Agency (USEPA) and

State Water Resources Control

Board (SWRCB).



2015 WATER QUALITY REPORT

CITY OF SAN JOSE ENVIRONMENTAL SERVICES DEPARTMENT SAN JOSE MUNICIPAL WATER SYSTEM

Delivering World Class Utility Services and Programs to Improve Our Health, Environment and Economy



San José Municipal Water System Environmental Services Department 3025 Tuers Road San José, CA 95121

WATER QUALITY REPORT



This report contains important information about your drinking water. We hope it will provide the facts and perspective you need to make an informed evaluation of your tap water. To view a copy, visit www.sienvironment.org/waterquality

這份報告包含了有關您的飲用水的重要資訊 請於www.sjenvironment.org/waterquality網址讀取這份報告的中文版

이 설명서에는 여러분의 식수에 대한 중요한 정보들이 포함되어 있습니다. 한국어로 읽으시려면 www.sjenvironment.org/waterquality로 가십시오.

Este informe contiene información muy importante sobre su agua potable. Para ver una copia en español visite la página de internet www.sjenvironment.org/waterquality

Mahalaga ang impormasyong ito. Upang makabasa ng kopya sa Tagalog, pumunta sa www.sjenvironment.org/waterqualit

Bảng tin nầy có nhiều thông tin quan trọng về nước uống. Để xem bản tiếng Việt, xin viếng www.sjenvironment.org/waterquality

The Source of Your Water

The San José Municipal Water System (Muni Water) serves the North San José, Alviso, Evergreen, Edenvale, and Coyote Valley communities of the City of San José. The source of your water depends on the service area in which you are located.

North San José/Alviso Service Area

Muni Water purchases a blend of Hetch Hetchy water and treated water from the San Francisco Public Utilities Commission (SFPUC) and delivers it to our Alviso and North San José customers. In 2015, the Hetch Hetchy Watershed provided most of the total SFPUC water supply, with supplementation by local watersheds in Alameda and Santa Clara counties. The major water source originates from spring snowmelt flowing down the Tuolumne River to the Hetch Hetchy Reservoir where it is stored. Since this water source meets all federal and state criteria for watershed protection, disinfection treatment practices, bacteriological quality monitoring, and high operational standards, the State and USEPA have granted this water source a filtration exemption.

The Alameda Watershed spans more than 35,000 acres in Alameda and Santa Clara counties. Surface water from rainfall and runoff is collected in the Calaveras and San Antonio reservoirs. Prior to distribution, the water from these reservoirs is treated at the Sunol Valley Water Treatment Plant (SVWTP). In 2011, the SFPUC began using ultraviolet (UV) light as an additional disinfection step for the Hetch Hetchy water supply. Fluoridation, chloramination, and corrosion control treatment are provided for the combined Hetch Hetchy and SVWTP water at the Sunol Chloramination and Fluoridation facilities.

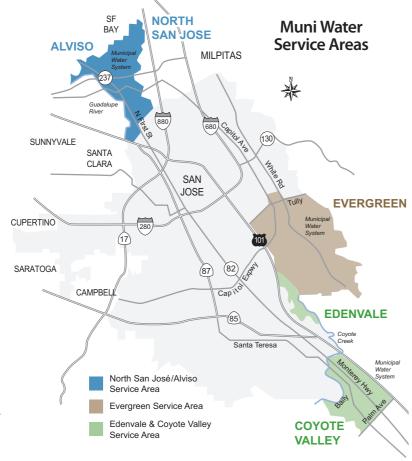
The SFPUC actively and aggressively protects the natural water resources entrusted to its care. An annual report on the Hetch Hetchy Watershed reflects the evaluation of its sanitary conditions, water quality, and potential contamination sources. The report also presents performance results of watershed management activities implemented by the SFPUC and partner agencies to reduce or eliminate potential contamination sources. The SFPUC also conducts sanitary surveys of the local watersheds every five years. These surveys identified wildlife and human activity as potential contamination sources. The reports are available for review through the SWRCB San Francisco District office.

In 2015, groundwater from local deep water wells in North San José was utilized to supplement the SFPUC supply. With this source water change, some customers may have received a blend of groundwater and SFPUC water. A slight difference in taste and odor may be noticed since groundwater generally has a higher mineral content than surface water.

Muni Water conducted a one-time source water assessment of the wells in January of 2003.*

Evergreen Service Area

Muni Water purchases treated surface water from the Santa Clara Valley Water District (SCVWD) and delivers it to our Evergreen customers. SCVWD surface water is mainly imported from the South Bay Aqueduct, Dyer Reservoir, Lake Del Valle, and San Luis Reservoir which all draw water from the Sacramento-San Joaquin Delta watershed SCVWD local surface water sources include Anderson and Calero



reservoirs. Water from imported and local sources is pumped to and treated at three water treatment plants located in San José.

Since 2006, the SCVWD has used ozone as the primary disinfectant. Ozone disinfection is highly effective at inactivating microbial contaminants and creates fewer disinfection by-products than chlorine. Ozone also effectively removes negative tastes and odors often caused by seasonal algal blooms in the Delta source waters.

SCVWD source waters are vulnerable to potential contamination from a variety of land use practices, such as agricultural and urban runoff, recreational activities, livestock grazing, and residential and industrial development. Imported sources are additionally vulnerable to wastewater treatment plant discharges, seawater intrusion, and wildfires in open space areas. Local sources are additionally vulnerable to contamination from commercial stables and historic mining practices. No contaminant associated with any of these activities has been detected in SCVWD treated water. The water treatment plants provide multiple barriers for physical removal and disinfection of contaminants. For additional information, visit the SCVWD website at www.valleywater.org.

Rather than depending solely on imported water supplies during the drought, Muni Water utilized groundwater from local deep water wells to supplement the SCVWD supply. With this source water change, some customers may have received a blend of groundwater and SCVWD water. A slight difference in taste and odor may be noticed since groundwater generally has a higher mineral content than surface water.

Muni Water conducted a source water assessment for the Evergreen wells in December 2014.*

■ Edenvale Service Area

Groundwater from deep water wells provides 100 percent of the supply for this service area. Muni Water conducted a one-time source water assessment for the Edenvale wells in January 2003.* Although the source is considered potentially vulnerable to chemical and petroleum processing activities, no contaminants associated with these activities have been detected.

■ Coyote Valley Service Area

Groundwater from deep water wells provides 100 percent of the supply for this service area. An assessment of these wells was conducted in June 2004,* and potable use of the groundwater began in 2005. Although the source is considered potentially vulnerable to agricultural drainage, unauthorized dumping, storage tank leaks, and sewer collection systems, no contaminants associated with these activities have been detected.

* For information about the type of contaminants tested or to get a copy of the groundwater well assessment reports for your service area, please contact a Water Quality Engineer at 408-277-3671.

Water Quality

Coliforms, reported as "Total Coliform," are bacteria that are naturally present in the environment and are used as an indicator that other potentially harmful bacteria may be present. Standards for compliance vary depending on the size of the distribution system. In larger systems (including Evergreen, Edenvale, and Coyote Valley), 95 percent of all samples taken each month must be free of coliforms. In smaller systems (including North San José and Alviso), no more than one sample per month may test positive for the presence of coliforms.

Disinfection of surface water is necessary to destroy disease-causing organisms for the protection of public health. In Evergreen, North San José, and Alviso, water is disinfected using chloramine. Except for a slight chlorinous taste or odor, chloramine is not harmful to the general public. However, it must be removed for kidney dialysis machines and aquariums. If you are receiving kidney dialysis treatment, please contact your doctor or dialysis technician. For pet fish, contact your local fish store for more information about special water treatment.

Fluoride is added to the treated water supplies in Evergreen, North San

José, and Alviso to help prevent dental cavities in consumers.



The Evergreen community approved fluoridation with an advisory vote in the early 1960s. Muni Water does not fluoridate well water. As a result, some areas of Evergreen supplied with a blend of groundwater and treated water may receive fluoride levels slightly below the recommended

The SFPUC System-Wide Fluoridation Project (affecting North San José and Alviso) became operational in November 2005. The fluoride levels in the treated water are maintained within the range required by state regulations. In 2015, some areas of North San José and Alviso may have received a blend of non-fluoridated groundwater and SFPUC treated water. As a result, some customers received water with fluoride levels slightly below the recommended range.

At present, additional fluoride is not added in Edenvale or Coyote Valley service areas. Consult your doctor or dentist if you are considering additional fluoride supplements or treatments.

Hardness consists mainly of calcium and magnesium salts. Although it does not pose a health risk, it may be considered undesirable for other reasons. Some benefits to reducing hardness by using water softeners are reductions in soap usage, longer life for water heaters, and less incrustation of pipes. Some disadvantages are an increase in sodium intake (depending on type of softener used), proper maintenance/servicing requirements, and potential adverse affects on plants and landscaping.

Turbidity is a measure of the cloudiness of the water. It is monitored because it is a good indicator of the effectiveness of the water treatment process. The turbidity standard for unfiltered supplies (e.g., Hetch Hetchy) is 5 NTU. The turbidity for filtered water supplies (e.g., SCVWD treated water) must be less than 0.3 NTU 95 percent of the time, and at no time higher than 1 NTU.

Giardia Lamblia is a parasitic microbe found in most surface water. The SFPUC and SCVWD regularly test for these waterborne pathogens, and found them at very low levels in source water in 2015. However, current test methods approved by the USEPA do not distinguish between dead organisms and those capable of causing disease. Ingestion of Giardia Lamblia may produce symptoms of nausea, abdominal cramps, diarrhea, and associated headaches.

Lead, if present at elevated levels, can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Muni Water is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to two minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline at 800-426-4791 or at www.epa.gov/safewater/lead.

2015 Water Quality Data

Water at various locations in the distribution system is tested by certified City staff and a private, state-certified laboratory using the latest testing procedures and equipment. During 2015, numerous tests were conducted on samples taken from the distribution system. In addition to these tests, the SCVWD and SFPUC perform their own water quality analyses of the source and treated water.

Test results from the distribution system and source water analyses are shown in the table at right. Some of the data, though representative, are more than one year old. SWRCB allows monitoring for some contaminants less than once per year since the concentrations of these contaminants do not change frequently.

Lab analysis was also performed for many constituents other than those listed in the tables; only those chemicals detected in the tap water are shown. For a complete list of all the chemicals analyzed or any questions about this report, please contact a Water Quality Engineer at 408-277-3671.

PRIMARY DRINKING WATER STANDARDS — Public Health-Related Standards

Parameter	Unit	MCL (MRDL) [AL]	PHG (MCLG) [MRDLG]			Evergreen (Groundwater)		Edenvale (Groundwater)		Coyote Valley (Groundwater)		North San José/Alviso (SFPUC Treated Water)		North San José (Groundwater)		Typical Source
INORGANIC CHEMICALS				Average	Range	Average	Range	Average	Range	Average	Range	Average	Range	Average	Range	
Aluminum	ppm	1	0.6	ND	ND - 0.072	0.05 ^b	ND - 0.21	ND ^b	ND	NDc	ND	ND	ND	ND ^b	ND	1
Barium	ppm	1	2	ND	ND	0.16 ^b	0.15 - 0.16	0.14 ^b	0.13 - 0.14	NDc	ND	ND	ND	0.2 ^b	0.2 - 0.2	1
Fluoride	ppm	2	1	0.89a	0.4 - 1.2	0.13 ^b	0.11 - 0.14	0.2 ^b	0.2 - 0.2	0.16 ^c	0.16 - 0.16	0.8	0.6 - 1.0	0.1 ^b	0.1 - 0.1	1, 2
Hexavalent Chromium	ppb	10	0.02	ND	ND	4.8 b	3.9 - 7.1	6.5 b	4.2 - 8.8	4.3c	4 - 4.5	ND	ND	ND ^b	ND	1, 12
Iron	ppm	0.3	0.1	ND	ND	ND ^b	ND - 0.27	ND ^b	ND - 0.2	ND ^c	ND	ND	ND	0.13	ND - 0.68	1
Nitrate (as NO3)	ppm	45	45	ND	ND - 4	11	10 - 12	8	7 - 15	ND	ND - 2	ND	ND	8	3 - 14	1, 3
ORGANIC CHEMICALS																
Total Trihalomethanesd	ppb	80	NS	50	29 - 75	NA	NA	NA	NA	NA	NA	45	28 - 64	NA	NA	4
Total Haloacetic Acids ^d	ppb	60	NS	12	0 - 15	NA	NA	NA	NA	NA	NA	31	1 - 36	NA	NA	4
Total Organic Carbon	ppm	Π	NS	3.03	2.57-3.63	NA	NA	NA	NA	NA	NA	2.1	1.4 - 5.2	NA	NA	15
RADIONUCLIDES																
Gross Alpha Particle Activity	pCi/L	15	0	ND	ND	1 ^b	0.04 - 2.5	NDc	ND	3.2 ^b	ND - 6.3	ND	ND	NA	NA	1
DISINFECTION																
Chloramine (as chlorine)a	ppm	(4)	[4]	1.20	0.02 - 2.4	NA	NA	NA	NA - 2.5*	NA	NA - 3.9*	2.9	1.2 - 3.4	NA	NA	5
MICROBIOLOGICAL																
Giardia lamblia	cyst/L	Π	(0)	0.2	0.2 - 0.2	NA	NA	NA	NA	NA	NA	0.01	ND - 0.08	NA	NA	6
				Highest %	Range	Highest %	Range	Highest %	Range	Highest %	Range	Highest #	Range	Highest #	Range	
Total Coliform ^a	% pos per month	5	(0)	0.97%	0 - 0.97	0.97%	0 - 0.97	0.97%	0 - 0.97	0.97%	0 - 0.97	NA	NA	NA	NA	6
	# pos per month	1	(0)	NA	NA	NA	NA	NA	NA	NA	NA	0	0	0	0	6
CLARITY																
Turbidity (unfiltered sources)	NTU	5	NS	NA		NA	NA	NA	NA	NA	NA	Highest L	evel = 3.1	NA	NA	7
Turbidity (filtered sources)	NTU	1	NS	Highest Le	evel = 0.12e	NA	NA	NA	NA	NA	NA	Highest L	evel = 1e	NA	NA	7
LEAD AND COPPER							90th Per	centile (# S	amples Exc	eeding AL)						
Lead ^a	ppb	[15]	0.2		ND (0	of 54)		ND (0 of 54)				ND (0 of 31)				8
Coppera	ppb	[1300]	300		190 (0	of 54)		190 (0 of 54)				ND (0 of 31)				8

Parameter	Unit	SMCL	Average	Range	Average	Range	Average	Range	Average	Range	Average	Range	Average	Range	Source
Chloride	ppm	500	80	65 - 109	48 ^b	45 - 53	45 ^b	43 - 48	42c	40 - 43	8.4	ND - 16	38 ^b	30 - 45	9, 10
Color	CU	15	ND	ND	ND ^b	ND	ND ^b	ND	1¢	0 - 1	ND	ND - 5	NDb	ND	11
Odor	TON	3	1	1-1	ND ^b	ND	1 b	ND - 1	NDc	ND	ND	ND	NDb	ND	11
Specific Conductance	μS/cm	1600	638	615 - 680	808 ^b	760 - 840	690 ^b	680 - 730	530c	520 - 540	144	34 - 213	755 ^b	630 - 880	10, 14
Sulfate	ppm	500	64	58 - 74	69 ^b	65 - 73	49 ^b	48 - 49	37 ^c	36 - 37	15	1.2 - 30	67 ^b	51 - 82	9, 12
Total Dissolved Solids	ppm	1000	380	314 - 530	548 ^b	530 - 590	395 ^b	380 - 440	310c	310 - 310	54	ND - 93	455 ^b	370 - 540	9
Turbidity	NTU	5	0.06	0.05 - 0.08	1 ^b	ND - 2.6	0.31 b	0.27 - 0.77	0.52c	0.10 - 0.61	0.1	0.1 - 0.3	0.49 ^b	0.18 - 0.79	7

OTHER WATER QUALITY PARAMETERS

Parameter	Unit	MCL	Average	Range	Average	Range	Average	Range	Average	Range	Average	Range	Average	Range
Boron	ppb	NS	168	140 - 206	NA	NA	NA	NA	NA	NA	103	103	NA	NA
Calcium	ppm	NS	30	25 - 36	63 ^b	56 - 70	49 ^b	45 - 49	41c	40 - 41	11	3 - 18	78 ^b	58 - 97
Hardness (as CaCO3)f	ppm	NS	159	135 - 179	402 ^b	388 - 422	305 ^b	300 - 310	230c	220 - 240	42	13 - 65	305 ^b	220 - 390
Magnesium	ppm	NS	17	16 - 20	60 ^b	56 - 68	45 ^b	43 - 46	33c	30 - 35	3.7	0.2 - 5.6	28 ^b	19 - 37
pH	-	NS	7.7	7.5 - 7.8	7.7 ^b	7.6 - 7.9	8 ^b	7.9 - 8	7.7c	7.7 - 7.7	9	7.1 - 9.9	8 ^b	7.8 - 8.1
Potassium	ppm	NS	3.1	2.7 - 3.9	NA	NA	NA	NA	NA	NA	0.6	0.2 - 0.9	NA	NA
Silica	ppm	NS	11	10 - 15	NA	NA	NA	NA	NA	NA	4.7	3.7 - 5.4	NA	NA
Sodium	ppm	NS	60	48 - 76	38 ^b	34 - 42	31 ^b	30 - 35	20°	19 - 21	13	2.9 - 19	40 ^b	34 - 45

* Temporary chlorination was performed during April 2015 and October 2015 for maintenance purposes. No chlorine was present in the service area during the remainder of the year

- a Distribution system data in 2015
- **b** Well data in 2014 c Well data in 2013
- d Distribution system data in 2015. Running averages are calculated
- from data for previous quarters that are not shown in this table. e Filtered water turbidity required to be < 0.3 NTU in 95% of samples. All
- filtered water sources met this standard
- f To convert hardness from ppm to grains per gallon, divide by 17.1

TYPICAL SOURCES IN DRINKING WATER

- 1 Erosion of natural deposits 11 Naturally-occurring organic material
- 2 Water additive that promotes strong teet
- 3 Runoff/leaching from fertilizers
- 4 By-product of drinking water disinfection
 - 6 Naturally present in the envi
 - 7 Soil runoff

 - 9 Runoff/leaching of natural deposits
- - 8 Internal corrosion of household plumbing system
 - 10 Seawater influence
- 12 Industrial waste

 - 13 Industrial discharges
 - 14 Substances forming ions in water 15 Various natural and manmade source
 - 16 Naturally occurring
 - 17 Human/animal fecal waste
 - 18 Discharge from steel and pulp mills, chrome plating
 - 19 Discharge from metal factories